

REMARKS

Claims 1-5, 7-17 and 19-27 are pending in this application. Claims 1, 4, 12, and 27 are the independent claim. By this Amendment, claim 1 is amended to delete the phrase “and the cast coating” which was added in the Amendment filed on September 23, 2008. Thus, no new matter is added. Applicant respectfully requests entry of this Supplemental Amendment as the amendment to claim 1 does not affect the patentability of the claim over the applied reference.

Rejections Under 35 U.S.C. §103

Claims 1, 4-6, 8-12, 19-24 and 27 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,805,298 to Corbett. The rejection is respectfully traversed.

Corbett relates to a preformed cementitious thermal heating panel that, once formed and installed on the floor of room to be heated, receives hydronic pipe in grooves in the panel. During manufacture, the panel is cast, pressed or extruded and grooves are molded or extruded into wet Portland cement, for example, that forms the panel. During installation, a panel which can retain a pipe in the formed groove is installed on a floor by nailing, screwing or adhering the panel to the floor. Thus, once the panel is installed, a hydronic pipe is installed in the groove and the panel and pipe are covered by a flooring material, such as tile.

As Corbett only discloses a process of forming the cementitious panel having grooves, Corbett fails to disclose or suggest the claimed process of producing a heat exchanger element including a fibrous mat where a layer of a cast coating is applied to a fibrous mat, a heat exchanging conduit is laid onto the fibrous mat, and curing the cast coating to form a cast mass. Rather, in Corbett, the panel is formed, cured and delivered to a location for installation without a heat exchanger element (hydronic pipe).

Moreover, although Corbett indicates that “additional layers of backing materials” may be added to the cementitious panels, there is no disclosure of the thickness of such “additional layers.” Corbett only discloses that the panel thickness must be sufficient to accommodate the hydronic pipe. For example, a panel thickness of 5/8” (15.9mm) is required to accommodate a pipe diameter of 3/8” and for stability of the panel. Thus, Corbett fails to disclose or suggest a applying a fibrous mat having a thickness of at least 25mm and a cast coating layer of 2-8mm.

Although the Examiner recognizes that Corbett fails to disclose any of the particular cast coating layer thicknesses or the particular grain size ranges or particular sizes of the heat

exchanger conduits as recited in the pending claims, it is alleged that absent an indication of unexpected results due to these features, that the features are not inventive.

Applicants respectfully point out to the Examiner that the specification is replete with advantages and unexpected results due to the cast coating thickness, grain size ranges, etc., recited in the rejected claims. For example, as discussed at page 7, lines 20-35, a panel formed by the claimed method and having the structural features of the claimed panel, will be lighter than existing panels, have better heat transfer characteristics and be more easily mounted on a wall or ceiling. In contrast, the panel of Corbett is heavy (made of Portland cement) and is disclosed as being mounted only on a floor due to its weight. Other disclosed advantages of the claimed method and panel include increased sound insulating characteristics (see page 8, lines 18-25, for example) and easy interconnectivity of the heat exchanger elements of the panels.

As Corbett fails to disclose or suggest all of the features recited in the rejected claims, withdrawal of the rejection is respectfully requested.

CONCLUSION

In view of the above remarks and amendments, the Applicant respectfully submits that each of the pending objections and rejections has been addressed and overcome, placing the present application in condition for allowance. A notice to that effect is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to contact the undersigned.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John W. Fitzpatrick, at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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